AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A data projector comprising:
at least one micro display having an image to be projected,
at least one source unit comprising at least one light source chip, and further comprising at least one beam forming component,

each beam forming component comprising a plurality of surfaces disposed in a three dimensional configuration where at least one of the said plurality of surfaces is patterned to provide a desired projection shape and a substantially uniform illumination onto a micro display, where said at least one of the plurality of surfaces comprises at least one of a diffractive and a refractive surface pattern, ~~source unit being designed to preserve etendue, to minimize photon loss, to provide a desired projection shape and a uniform illumination onto the micro display,~~

~~and at least one beam forming component,~~

~~each beam forming component comprising at least one diffractive element,~~

and a focusing optical unit for projecting the image of the micro display on a target.

2. (Original) The data projector of claim 1, wherein the data projector comprises at least one green LED, at least one blue LED and at least one red LED as light sources.

3. (Original) The data projector of claim 1, wherein the data projector comprises an LCD, LCoS, DMD, MLA LCD, MLA LCoS display or the like as the micro display.

4. (Original) The data projector of claim 1, wherein the data projector further comprises an optical unit between the beam forming component and the micro display for directing the optical radiation more efficiently, the optical unit being a lens, a mirror, a fresnel lens, a diffractive element, a micro lens array, x-cube or other optical component or a series of these or any combination thereof.

5. (Original) The data projector of claim 1, wherein the data projector further comprises an optical unit between the micro display and the focusing unit for directing the optical radiation more efficiently, the optical unit being a lens, a mirror, a fresnel lens, a diffractive element, a micro lens array, x-cube or other optical component or a series of these or any combination thereof.

6. (Original) The data projector of claim 1, wherein the data projector further comprises: means for dividing the beam of light from each light source into two beams with different polarizations, the micro display being divided into separate parts or using two separate micro displays to which each beam of the two beams of each light source is directed.

7. (Original) The data projector of claim 6, wherein the data projector further comprises means for combining the two beams of light of each light source after the micro display.

8. (Original) The data projector of claim 1, wherein the refractive index of the transparent material in each beam forming component is equal or close to equal to the refractive indexes of the corresponding source chip.

9. (Original) The data projector of claim 1, wherein each beam forming component is integrated with a corresponding light source chip.

10. (Original) The data projector of claim 1, wherein the image is a video image.

11. (Original) The data projector of claim 1, wherein the data projector is a part of a portable electronic device.

12. (Original) The data projector of claim 6, wherein the two different polarizations are projected with separate images which form a stereo pair and viewed with polarization glasses to enable 3D effect.

13. (Original) The data projector of claim 1, wherein the target is a virtual plane.

14. (Original) The data projector of claim 1 in the following uses: television, computer monitor, video projector, slide presenter / slide projector, virtual display projector.

15. (Original) The data projector of claim 1 as an accessory to or integrated into: a mobile phone, a DVD- or other media player, a video camcorder, a digital camera, a Personal Digital Assistant, a Laptop PC, a handheld or desktop gaming device, a video conferencing device, a head mounted display, a multimedia device at home, hotels, restaurants, cars, airplanes, ships and other vehicles; multimedia devices at offices, public buildings and other locations; military displays.

16. (New) A data projector comprising:

at least one micro display having an image to be projected,
at least one source unit comprising at least one light source chip,
said source unit further comprising at least one beam forming component,
said at least one beam forming component comprising a plurality of surfaces disposed in a three dimensional configuration,
wherein at least one of said plurality of surfaces is patterned to provide a desired projection shape and a substantially uniform illumination onto the micro display;
at least one of said plurality of surfaces comprising at least one of a diffractive and a refractive surface pattern,
and a focusing optical unit for projecting the image of the micro display on a target.

17. (New) The data projector of claim 16, wherein the data projector comprises at least one green LED, at least one blue LED and at least one red LED as light sources.

18. (New) The data projector of claim 16, wherein the data projector comprises an LCD, LCoS, DMD, MLA LCD, MLA LCoS display or the like as the micro display.

19. (New) The data projector of claim 16, wherein the data projector further comprises an optical unit between the beam forming component and the micro display for directing the optical radiation more efficiently, the optical unit being a lens, a mirror, a fresnel lens, a diffractive element, a micro lens array, x-cube or other optical component or a series of these or any combination thereof.

20. (New) The data projector of claim 16, wherein the data projector further comprises an optical unit between the micro display and the focusing unit for directing the optical radiation more efficiently, the optical unit being a lens, a mirror, a fresnel lens, a diffractive element, a micro lens array, x-cube or other optical component or a series of these or any combination thereof.

21. (New) The data projector of claim 16, wherein the data projector further comprises: means for dividing the beam of light from each light source into two beams with different polarizations, the micro display being divided into separate parts or using two separate micro displays to which each beam of the two beams of each light source is directed.

22. (New) The data projector of claim 21, wherein the data projector further comprises means for combining the two beams of light of each light source after the micro display.

23. (New) The data projector of claim 16, wherein the refractive index of the transparent material in each beam forming component is equal or close to equal to the refractive indexes of the corresponding source chip.

24. (New) The data projector of claim 16, wherein each beam forming component is integrated with a corresponding light source chip.

25. (New) The data projector of claim 16, wherein the image is a video image.

26. (New) The data projector of claim 16, wherein the data projector is a part of a portable electronic device.

27. (New) The data projector of claim 21, wherein the two different polarizations are projected with separate images which form a stereo pair and viewed with polarization glasses to enable 3D effect.

28. (New) The data projector of claim 16, wherein the target is a virtual plane.

29. (New) The data projector of claim 16 in the following uses: television, computer monitor, video projector, slide presenter / slide projector, virtual display projector.

30. (New) The data projector of claim 16 as an accessory to or integrated into: a mobile phone, a DVD- or other media player, a video camcorder, a digital camera, a Personal Digital Assistant, a Laptop PC, a handheld or desktop gaming device, a video conferencing device, a head mounted display, a multimedia device at home, hotels, restaurants, cars, airplanes, ships and other vehicles; multimedia devices at offices, public buildings and other locations; military displays.

31. (New) The data projector of claim 16, where said at least one source unit is operable to preserve etendue and minimize photon loss.

32. (New) The data projector of claim 16, wherein the beam forming component comprises a light emitting diode.

33. (New) A method of data projection comprising:

operating at least one light source chip of at least one source unit for illuminating at least one micro display, while preserving etendue, and minimizing photon loss;

where operating the at least one light source chip comprises beam forming the illumination to provide a desired projection shape and a substantially uniform illumination using a plurality of patterned surfaces disposed in a three dimensional configuration, where at least one of the plurality of surfaces comprises at least one of a diffractive and a refractive surface pattern,

focusing a desired image resulting from illumination of the micro display; and

projecting the focused image onto a target.

34. (New) A method as in claim 33, wherein the at least one light source chip comprises a LED (Light Emitting Diode) source.

35. (New) A method as in claim 33, wherein an optical output of the at least one light source chip has a bandwidth of about one nanometre to about 150 nanometres.

36. (New) A method as in claim 33, wherein an optical output of the at least one light source chip has a bandwidth of about 10 nanometres to about 50 nanometres.

37. (New) A method as in claim 33, wherein the at least one light source chip is mounted on a reflective surface.

38. (New) A method as in claim 33, wherein the at least one light source chip is mounted on a reflective metal surface to conduct heat away.

39. (New) A method as in claim 33, wherein the beam forming component comprises a reflective component.

40. (New) A method as in claim 33, wherein the at least one source unit comprises at least three light source chips outputting red, green and blue light, the at least three light source chips being integrated with the beam forming component, the beam forming component comprising at least one diffractive element optimized for red, green and blue simultaneously.

41. (New) A method as in claim 33, wherein the micro display comprises at least one of an LCD (liquid crystal device), a DMD (digital micro mirror device), a LCoS (liquid crystal on silicon) based spatial modulator and a micro-lens array (MLA) with a LCD.

42. (New) A method as in claim 33, wherein focusing comprises using at least one of a single lens, a fresnel lens, a single mirror, a diffractive optical element, and a hybrid refractive-

diffractive element.

43. (New) A beam forming component comprising a plurality of surfaces disposed in a three dimensional configuration, where at least one of said plurality of surfaces is patterned to provide a desired projection shape and a substantially uniform illumination onto a micro display, where said at least one of the plurality of surfaces comprises at least one of a diffractive and a refractive surface pattern.